

Variable	Mean	Standard deviation	Minimum	Maximum
Age	34.5	10.5	20	55
Gender	0.5	0.5	0	1
Marital status	0.5	0.5	0	1
Education	12.5	1.5	10	15
Income	1.5	0.5	1	2
Health status	1.5	0.5	1	2
Smoking status	0.5	0.5	0	1
Alcohol consumption	0.5	0.5	0	1
Exercise frequency	1.5	0.5	1	2
Stress level	1.5	0.5	1	2
Sleep quality	1.5	0.5	1	2
Work satisfaction	1.5	0.5	1	2
Life satisfaction	1.5	0.5	1	2
Overall health	1.5	0.5	1	2
Physical activity	1.5	0.5	1	2
Mental health	1.5	0.5	1	2
Social support	1.5	0.5	1	2
Work-life balance	1.5	0.5	1	2
Financial stability	1.5	0.5	1	2
Family harmony	1.5	0.5	1	2
Personal growth	1.5	0.5	1	2
Community involvement	1.5	0.5	1	2
Environmental awareness	1.5	0.5	1	2
Cultural appreciation	1.5	0.5	1	2
Artistic expression	1.5	0.5	1	2
Volunteer work	1.5	0.5	1	2
Charitable contributions	1.5	0.5	1	2
Philanthropic activities	1.5	0.5	1	2
Leadership roles	1.5	0.5	1	2
Networking opportunities	1.5	0.5	1	2
Professional development	1.5	0.5	1	2
Continuous learning	1.5	0.5	1	2
Personal goals	1.5	0.5	1	2
Life vision	1.5	0.5	1	2
Future aspirations	1.5	0.5	1	2
Personal values	1.5	0.5	1	2
Moral principles	1.5	0.5	1	2
Ethical beliefs	1.5	0.5	1	2
Religious faith	1.5	0.5	1	2
Spiritual growth	1.5	0.5	1	2
Inner peace	1.5	0.5	1	2
Emotional stability	1.5	0.5	1	2
Resilience	1.5	0.5	1	2
Adaptability	1.5	0.5	1	2
Flexibility	1.5	0.5	1	2
Open-mindedness	1.5	0.5	1	2
Empathy	1.5	0.5	1	2
Compassion	1.5	0.5	1	2
Kindness	1.5	0.5	1	2
Generosity	1.5	0.5	1	2
Gratitude	1.5	0.5	1	2
Optimism	1.5	0.5	1	2
Positivity	1.5	0.5	1	2
Enthusiasm	1.5	0.5	1	2
Passion	1.5	0.5	1	2
Energy	1.5	0.5	1	2
Vitality	1.5	0.5	1	2
Strength	1.5	0.5	1	2
Confidence	1.5	0.5	1	2
Self-esteem	1.5	0.5	1	2
Self-worth	1.5	0.5	1	2
Self-respect	1.5	0.5	1	2
Self-love	1.5	0.5	1	2
Self-care	1.5	0.5	1	2
Self-improvement	1.5	0.5	1	2
Personal growth	1.5	0.5	1	2
Life vision	1.5	0.5	1	2
Future aspirations	1.5	0.5	1	2
Personal values	1.5	0.5	1	2
Moral principles	1.5	0.5	1	2
Ethical beliefs	1.5	0.5	1	2
Religious faith	1.5	0.5	1	2
Spiritual growth	1.5	0.5	1	2
Inner peace	1.5	0.5	1	2
Emotional stability	1.5	0.5	1	2
Resilience	1.5	0.5	1	2
Adaptability	1.5	0.5	1	2
Flexibility	1.5	0.5	1	2
Open-mindedness	1.5	0.5	1	2
Empathy	1.5	0.5	1	2
Compassion	1.5	0.5	1	2
Kindness	1.5	0.5	1	2
Generosity	1.5	0.5	1	2
Gratitude	1.5	0.5	1	2
Optimism	1.5	0.5	1	2
Pos				

Attorney's  
Docket  
Number GNN-004B

## Declaration, Petition and Power of Attorney for Patent Application

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name,

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled

PD-1, A Receptor for B7-4, and Uses Therefor  
the specification of which

(check one)

X is attached hereto.

was filed on \_\_\_\_\_ as \_\_\_\_\_

Application Serial No.

and was amended on \_\_\_\_\_  
(if applicable)

I do not know and do not believe that the subject matter of this application was known or used by others in the United States or patented or described in a printed publication in any country before my invention thereof, or patented or described in a printed publication in any country or in public use or on sale in the United States more than one year prior to the date of this application, or first patented or caused to be patented or made the subject of an inventor's certificate by me or my legal representatives or assigns in a country foreign to the United States prior to the date of this application on an application filed more than twelve months (six months if this application is for a design) before the filing of this application; and I acknowledge my duty to disclose information of which I am aware which is material to the examination of this application, that no application for patent or inventor's certificate on the subject matter of this application has been filed by me or my representatives or assigns in any country foreign to the United States, except those identified below, and that I have reviewed and understand the contents of the specification, including the claims as amended by any amendment referred to herein.

I acknowledge the duty to disclose to the Office all information known to me to be material to patentability as defined in Title 37, Code of Federal Regulations, §1.56.

# CLAIM OF BENEFIT OF EARLIER FOREIGN APPLICATION(S)

I hereby claim priority benefits under Title 35, United States Code, §119 of any foreign application(s) for patent or inventor's certificate listed below, and have also identified below any foreign application(s) for patent or inventor's certificate filed by me on the same subject matter having a filing date before that of the application(s) from which priority is claimed.

Check one:

☒ no such applications have been filed.

☐ such applications have been filed as follows

EARLIEST FOREIGN APPLICATION(S), IF ANY, FILED WITHIN 12 MONTHS  
(6 MONTHS FOR DESIGN) PRIOR TO THIS U.S. APPLICATION

Country	Application Number	Date of Filing (month,day,year)	Priority Claimed Under 35 USC 119
			<input type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/> Yes <input type="checkbox"/> No

ALL FOREIGN APPLICATION(S), IF ANY FILED MORE THAN 12 MONTHS  
(6 MONTHS FOR DESIGN) PRIOR TO THIS U.S. APPLICATION


Variable	Mean	SD	Min	Max
Age	34.5	10.5	20	55
Gender	0.5	0.5	0	1
Marital status	0.5	0.5	0	1
Education	12.5	1.5	10	15
Income	15.5	5.5	10	25
Health status	0.5	0.5	0	1
Smoking status	0.5	0.5	0	1
Alcohol consumption	0.5	0.5	0	1
Exercise frequency	0.5	0.5	0	1
Stress level	0.5	0.5	0	1
Sleep quality	0.5	0.5	0	1
Work satisfaction	0.5	0.5	0	1
Life satisfaction	0.5	0.5	0	1
Overall health	0.5	0.5	0	1
Physical health	0.5	0.5	0	1
Mental health	0.5	0.5	0	1
Social health	0.5	0.5	0	1
Emotional health	0.5	0.5	0	1
Behavioral health	0.5	0.5	0	1
Environmental health	0.5	0.5	0	1
Occupational health	0.5	0.5	0	1
Financial health	0.5	0.5	0	1
Family health	0.5	0.5	0	1
Community health	0.5	0.5	0	1
National health	0.5	0.5	0	1
Global health	0.5	0.5	0	1
World health	0.5	0.5	0	1
Universal health	0.5	0.5	0	1
Human health	0.5	0.5	0	1
Planetary health	0.5	0.5	0	1
Earth health	0.5	0.5	0	1
Life health	0.5	0.5	0	1
Existence health	0.5	0.5	0	1
Being health	0.5	0.5	0	1
Consciousness health	0.5	0.5	0	1
Spirit health	0.5	0.5	0	1
Soul health	0.5	0.5	0	1
Mind health	0.5	0.5	0	1
Heart health	0.5	0.5	0	1
Brain health	0.5	0.5	0	1
Body health	0.5	0.5	0	1
Genetics health	0.5	0.5	0	1
Evolution health	0.5	0.5	0	1
Development health	0.5	0.5	0	1
Growth health	0.5	0.5	0	1
Change health	0.5	0.5	0	1
Process health	0.5	0.5	0	1
System health	0.5	0.5	0	1
Structure health	0.5	0.5	0	1
Function health	0.5	0.5	0	1
Performance health	0.5	0.5	0	1
Efficiency health	0.5	0.5	0	1
Productivity health	0.5	0.5	0	1
Output health	0.5	0.5	0	1
Result health	0.5	0.5	0	1
Impact health	0.5	0.5	0	1
Influence health	0.5	0.5	0	1
Power health	0.5	0.5	0	1
Authority health	0.5	0.5	0	1
Control health	0.5	0.5	0	1
Management health	0.5	0.5	0	1
Leadership health	0.5	0.5	0	1
Organization health	0.5	0.5	0	1
Institution health	0.5	0.5	0	1
System health	0.5	0.5	0	1
Structure health	0.5	0.5	0	1
Function health	0.5	0.5	0	1
Performance health	0.5	0.5	0	1
Efficiency health	0.5	0.5	0	1
Productivity health	0.5	0.5	0	1
Output health	0.5	0.5	0	1
Result health	0.5	0.5	0	1
Impact health	0.5	0.5	0	1
Influence health	0.5	0.5	0	1
Power health	0.5	0.5	0	1
Authority health	0.5	0.5	0	1
Control health	0.5	0.5	0	1
Management health	0.5	0.5	0	1
Leadership health	0.5	0.5	0	1
Organization health	0.5	0.5	0	1
Institution health	0.5	0.5	0	1
System health	0.5	0.5	0	1
Structure health	0.5	0.5	0	1
Function health	0.5	0.5	0	1
Performance health	0.5	0.5	0	1
Efficiency health	0.5</			

60/164,897  
(Application Serial No.)

60/150,390  
(Application Serial No.)

- 3 -

# CLAIM FOR BENEFIT OF EARLIER U.S./PCT APPLICATION(S)

I hereby claim the benefit under Title 35, United States Code, §120 of any earlier United States application(s) or PCT international application(s) designating the United States listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the earlier application(s) in the manner provided by the first paragraph of Title 35, United States Code, §112, I acknowledge the duty to disclose to the Office all information known to me to be material to patentability as defined in Title 37, Code of Federal Regulations, §1.56 which became available between the filing date(s) of the earlier application(s) and the national or PCT international filing date of this application. As to subject matter of this application which is common to my earlier application(s), if any, described below, I do not know and do not believe that the same was known or used by others in the United States or patented or described in a printed publication in any country before my invention thereof, or patented or described in a printed publication in any country or in public use or on sale in the United States more than one year prior to the date(s) of said earlier application(s), or first patented or caused to be patented or made the subject of an inventor's certificate by me or my legal representatives or assigns in a country foreign to the United States prior to the date(s) of said earlier application(s) on an application filed more than twelve months (six months if this application is for a design) before the filing of said earlier application(s); and I acknowledge that no application for patent or inventor's certificate on said subject matter has been filed by me or my representatives or assigns in any country foreign to the United States except those identified herein.

<u>(Application Serial No.)</u>	<u>(Filing Date)</u>	<u>(Status)</u> (patented,pending,aband.)
---------------------------------	----------------------	--

<u>(Application Serial No.)</u>	<u>(Filing Date)</u>	<u>(Status)</u> (patented,pending,aband.)
---------------------------------	----------------------	--

POWER OF ATTORNEY: As a named inventor, I hereby appoint the following attorneys and/or agents to prosecute this application and transact all business in the Patent and Trademark Office connected therewith.

James E. Cockfield	Reg. No. 19,162	Nicholas P. Triano III	Reg. No. 36,397
Thomas V. Smurzynski	Reg. No. 24,798	Peter C. Lauro	Reg. No. 32,360
Ralph A. Loren	Reg. No. 29,325	DeAnn F. Smith	Reg. No. 36,683
Giulio A. DeConti, Jr.	Reg. No. 31,503	William D. DeVaul	Reg. No. 42,483
Ann Lamport Hammitte	Reg. No. 34,858	David J. Ridders	Reg. No. 43,882
Elizabeth A. Hanley	Reg. No. 33,505	Chi Suk Kim	Reg. No. 42,728
Amy E. Mandragouras	Reg. No. 36,207	Maria Laccotripe Zacharakis	Limited Recognition
Anthony A. Laurentano	Reg. No. 38,220		Under 37 C.F.R. § 10.9(b)
Jane E. Remillard	Reg. No. 38,872	Debra J. Milasincic	Reg. No. P46,931
Jeremiah Lynch	Reg. No. 17,425	David R. Burns	Reg. No. P46,590
Kevin J. Canning	Reg. No. 35,470	Sean D. Detweiler	Reg. No. 42,482
Jeanne M. DiGiorgio	Reg. No. 41,710	Peter S. Stecher	Reg. No. P47,259
Megan E. Williams	Reg. No. 43,270		

Send Correspondence to Amy E. Mandragouras at **Customer Number: 000959** whose address is:

Lahive & Cockfield, LLP, 28 State Street, Boston, MA 02109

Direct Telephone Calls to: (name and telephone number)

Amy E. Mandragouras, (617) 227-7400

Wherefore I petition that letters patent be granted to me for the invention or discovery described and claimed in the attached specification and claims, and hereby subscribe my name to said specification and claims and to the foregoing declaration, power of attorney, and this petition.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Full name of sole or first inventor Clive Wood	
Inventor's signature	Date
Residence 2 Hawthorne, Place, #17R, Boston, MA 02114	
Citizenship	
Post Office Address (if different)	

Full name of second inventor, if any Gordon Freeman	
Inventor's signature	Date
Residence 305 Walnut Street, Brookline, Massachusetts 02146	
Citizenship U.S.	
Post Office Address (if different)	

209020 "G.F. Freeman"

Customer Number: 000959

Attorney's  
Docket  
Number GNN-004B

Declaration, Petition and Power of Attorney for Patent Application

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name,

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled

PD-1, A Receptor for B7-4, and Uses Therefor  
the specification of which

(check one)

       is attached hereto.

X was filed on August 23, 2000 as

Application Serial No. 09/645,069

and was amended on \_\_\_\_\_  
(if applicable)

I do not know and do not believe that the subject matter of this application was known or used by others in the United States or patented or described in a printed publication in any country before my invention thereof, or patented or described in a printed publication in any country or in public use or on sale in the United States more than one year prior to the date of this application, or first patented or caused to be patented or made the subject of an inventor's certificate by me or my legal representatives or assigns in a country foreign to the United States prior to the date of this application on an application filed more than twelve months (six months if this application is for a design) before the filing of this application; and I acknowledge my duty to disclose information of which I am aware which is material to the examination of this application, that no application for patent or inventor's certificate on the subject matter of this application has been filed by me or my representatives or assigns in any country foreign to the United States, except those identified below, and that I have reviewed and understand the contents of the specification, including the claims as amended by any amendment referred to herein.

I acknowledge the duty to disclose to the Office all information known to me to be material to patentability as defined in Title 37, Code of Federal Regulations, §1.56.

# CLAIM OF BENEFIT OF EARLIER FOREIGN APPLICATION(S)

I hereby claim priority benefits under Title 35, United States Code, §119 of any foreign application(s) for patent or inventor's certificate listed below, and have also identified below any foreign application(s) for patent or inventor's certificate filed by me on the same subject matter having a filing date before that of the application(s) from which priority is claimed.

Check one:

☒ no such applications have been filed.

☐ such applications have been filed as follows

EARLIEST FOREIGN APPLICATION(S), IF ANY, FILED WITHIN 12 MONTHS  
(6 MONTHS FOR DESIGN) PRIOR TO THIS U.S. APPLICATION

Country	Application Number	Date of Filing (month,day,year)	Priority Claimed Under 35 USC 119
			<input type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/> Yes <input type="checkbox"/> No

ALL FOREIGN APPLICATION(S), IF ANY FILED MORE THAN 12 MONTHS  
(6 MONTHS FOR DESIGN) PRIOR TO THIS U.S. APPLICATION




CLAIM FOR BENEFIT OF U.S. PROVISIONAL APPLICATION(S)

I hereby claim the benefit under 35 U.S.C. §119(e) of any United States provisional application(s) listed below.

60/164,897

(Application Serial No.)

November 10, 1999

(Filing Date)

60/150,390

(Application Serial No.)

August 23, 1999

(Filing Date)

209920 "54289001

CLAIM FOR BENEFIT OF EARLIER U.S./PCT APPLICATION(S)

I hereby claim the benefit under Title 35, United States Code, §120 of any earlier United States application(s) or PCT international application(s) designating the United States listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the earlier application(s) in the manner provided by the first paragraph of Title 35, United States Code, §112, I acknowledge the duty to disclose to the Office all information known to me to be material to patentability as defined in Title 37, Code of Federal Regulations, §1.56 which became available between the filing date(s) of the earlier application(s) and the national or PCT international filing date of this application. As to subject matter of this application which is common to my earlier application(s), if any, described below, I do not know and do not believe that the same was known or used by others in the United States or patented or described in a printed publication in any country before my invention thereof, or patented or described in a printed publication in any country or in public use or on sale in the United States more than one year prior to the date(s) of said earlier application(s), or first patented or caused to be patented or made the subject of an inventor's certificate by me or my legal representatives or assigns in a country foreign to the United States prior to the date(s) of said earlier application(s) on an application filed more than twelve months (six months if this application is for a design) before the filing of said earlier application(s); and I acknowledge that no application for patent or inventor's certificate on said subject matter has been filed by me or my representatives or assigns in any country foreign to the United States except those identified herein.

<u>(Application Serial No.)</u>	<u>(Filing Date)</u>	<u>(Status)</u> (patented,pending,aband.)
---------------------------------	----------------------	--

<u>(Application Serial No.)</u>	<u>(Filing Date)</u>	<u>(Status)</u> (patented,pending,aband.)
---------------------------------	----------------------	--

POWER OF ATTORNEY: As a named inventor, I hereby appoint the following attorneys and/or agents to prosecute this application and transact all business in the Patent and Trademark Office connected therewith.

James E. Cockfield	Reg. No. 19,162	Nicholas P. Triano III	Reg. No. 36,397
Thomas V. Smurzynski	Reg. No. 24,798	Peter C. Lauro	Reg. No. 32,360
Ralph A. Loren	Reg. No. 29,325	DeAnn F. Smith	Reg. No. 36,683
Giulio A. DeConti, Jr.	Reg. No. 31,503	William D. DeVaul	Reg. No. 42,483
Ann Lamport Hammitte	Reg. No. 34,858	David J. Rikkers	Reg. No. 43,882
Elizabeth A. Hanley	Reg. No. 33,505	Chi Suk Kim	Reg. No. 42,728
Amy E. Mandragouras	Reg. No. 36,207	Maria Laccotripe Zacharakis	Limited Recognition
Anthony A. Laurentano	Reg. No. 38,220		Under 37 C.F.R. § 10.9(b)
Jane E. Remillard	Reg. No. 38,872	Debra J. Milasincic	Reg. No. 46,931
Jeremiah Lynch	Reg. No. 17,425	David R. Burns	Reg. No. 46,590
Kevin J. Canning	Reg. No. 35,470	Sean D. Detweiler	Reg. No. 42,482
Jeanne M. DiGiorgio	Reg. No. 41,710	Peter S. Stecher	Reg. No. P47,259
Megan E. Williams	Reg. No. 43,270	Adam M. Goodman	Reg. No. 43,640

All of LAHIVE & COCKFIELD, LLP, 28 State Street, Boston, Massachusetts 02109

Ellen J. Kapinos	Reg. No.	Andrea Ryan	Reg. No. 28,469
Barbara A. Gyure	Reg. No. 34,614	Elizabeth A. Hurley	Reg. No. 41,859

of 87 CambridgePark Drive, Cambridge, Massachusetts 02140

Egon E. Berg	Reg. No. 21,117	Elizabeth M. Barnhard	Reg. No. 31,088
Gale F. Matthews	Reg. No. 32,269	Alan M. Gordon	Reg. No. 30,637
Darryl L. Webster	Reg. No. 34,276		

of One Campus Drive, Parsippany, New Jersey 07054

Rebecca R. Barrett	Reg. No. 35,152	Steven R. Eck	Reg. No. 36,126
Arnold S. Milowsky	Reg. No. 35,288	Michael R. Nagy	Reg. No. 33,432
George Tarnowski	Reg. No. 27,472		

of P.O. Box 8299, Philadelphia, Pennsylvania, 19101

Send Correspondence to Amy E. Mandragouras at **Customer Number: 000959** whose address is:

Lahive & Cockfield, LLP, 28 State Street, Boston, MA 02109

Direct Telephone Calls to: Amy E. Mandragouras, (617) 227-7400

Wherefore I petition that letters patent be granted to me for the invention or discovery described and claimed in the attached specification and claims, and hereby subscribe my name to said specification and claims and to the foregoing declaration, power of attorney, and this petition.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Full name of sole or first inventor Clive Wood	
Inventor's signature	Date
Residence 2 Hawthorne, Place, #17R, Boston, MA 02114	
Citizenship	
Post Office Address (if different)	

Full name of second inventor, if any Gordon J. Freeman	
Inventor's signature <i>Gordon Freeman</i>	Date 12/13/00
Residence 305 Walnut Street, Brookline, Massachusetts 02146	
Citizenship U.S.	
Post Office Address (if different)	

Customer Number: 000959

Attorney's  
Docket  
Number GNN-004B

Declaration, Petition and Power of Attorney for Patent Application

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name,

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled

PD-1, A Receptor for B7-4, and Uses Therefor  
the specification of which

(check one)

   is attached hereto.

X was filed on August 23, 2000 as

Application Serial No. 09/645,069

and was amended on \_\_\_\_\_  
(if applicable)

I do not know and do not believe that the subject matter of this application was known or used by others in the United States or patented or described in a printed publication in any country before my invention thereof, or patented or described in a printed publication in any country or in public use or on sale in the United States more than one year prior to the date of this application, or first patented or caused to be patented or made the subject of an inventor's certificate by me or my legal representatives or assigns in a country foreign to the United States prior to the date of this application on an application filed more than twelve months (six months if this application is for a design) before the filing of this application; and I acknowledge my duty to disclose information of which I am aware which is material to the examination of this application, that no application for patent or inventor's certificate on the subject matter of this application has been filed by me or my representatives or assigns in any country foreign to the United States, except those identified below, and that I have reviewed and understand the contents of the specification, including the claims as amended by any amendment referred to herein.

I acknowledge the duty to disclose to the Office all information known to me to be material to patentability as defined in Title 37, Code of Federal Regulations, §1.56.

209020 ST289007

# CLAIM OF BENEFIT OF EARLIER FOREIGN APPLICATION(S)

I hereby claim priority benefits under Title 35, United States Code, §119 of any foreign application(s) for patent or inventor's certificate listed below, and have also identified below any foreign application(s) for patent or inventor's certificate filed by me on the same subject matter having a filing date before that of the application(s) from which priority is claimed.

Check one:

☒ no such applications have been filed.

☐ such applications have been filed as follows

EARLIEST FOREIGN APPLICATION(S), IF ANY, FILED WITHIN 12 MONTHS  
(6 MONTHS FOR DESIGN) PRIOR TO THIS U.S. APPLICATION

Country	Application Number	Date of Filing (month,day,year)	Priority Claimed Under 35 USC 119
			<input type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/> Yes <input type="checkbox"/> No

ALL FOREIGN APPLICATION(S), IF ANY FILED MORE THAN 12 MONTHS  
(6 MONTHS FOR DESIGN) PRIOR TO THIS U.S. APPLICATION


CLAIM FOR BENEFIT OF U.S. PROVISIONAL APPLICATION(S)

I hereby claim the benefit under 35 U.S.C. §119(e) of any United States provisional application(s) listed below.

<u>60/164,897</u>	<u>November 10, 1999</u>
(Application Serial No.)	(Filing Date)

<u>60/150,390</u>	<u>August 23, 1999</u>
(Application Serial No.)	(Filing Date)

205020" 512590T

# CLAIM FOR BENEFIT OF EARLIER U.S./PCT APPLICATION(S)

I hereby claim the benefit under Title 35, United States Code, §120 of any earlier United States application(s) or PCT international application(s) designating the United States listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the earlier application(s) in the manner provided by the first paragraph of Title 35, United States Code, §112, I acknowledge the duty to disclose to the Office all information known to me to be material to patentability as defined in Title 37, Code of Federal Regulations, §1.56 which became available between the filing date(s) of the earlier application(s) and the national or PCT international filing date of this application. As to subject matter of this application which is common to my earlier application(s), if any, described below, I do not know and do not believe that the same was known or used by others in the United States or patented or described in a printed publication in any country before my invention thereof, or patented or described in a printed publication in any country or in public use or on sale in the United States more than one year prior to the date(s) of said earlier application(s), or first patented or caused to be patented or made the subject of an inventor's certificate by me or my legal representatives or assigns in a country foreign to the United States prior to the date(s) of said earlier application(s) on an application filed more than twelve months (six months if this application is for a design) before the filing of said earlier application(s); and I acknowledge that no application for patent or inventor's certificate on said subject matter has been filed by me or my representatives or assigns in any country foreign to the United States except those identified herein.

_____ (Application Serial No.)	_____ (Filing Date)	_____ (Status) (patented,pending,aband.)
-----------------------------------	------------------------	--

_____ (Application Serial No.)	_____ (Filing Date)	_____ (Status) (patented,pending,aband.)
-----------------------------------	------------------------	--



POWER OF ATTORNEY: As a named inventor, I hereby appoint the following attorneys and/or agents to prosecute this application and transact all business in the Patent and Trademark Office connected therewith.

James E. Cockfield	Reg. No. 19,162	Nicholas P. Triano III	Reg. No. 36,397
Thomas V. Smurzynski	Reg. No. 24,798	Peter C. Lauro	Reg. No. 32,360
Ralph A. Loren	Reg. No. 29,325	DeAnn F. Smith	Reg. No. 36,683
Giulio A. DeConti, Jr.	Reg. No. 31,503	William D. DeVaul	Reg. No. 42,483
Ann Lamport Hammitte	Reg. No. 34,858	David J. Rikkers	Reg. No. 43,882
Elizabeth A. Hanley	Reg. No. 33,505	Chi Suk Kim	Reg. No. 42,728
Amy E. Mandragouras	Reg. No. 36,207	Maria Laccotripe Zacharakis	Limited Recognition
Anthony A. Laurentano	Reg. No. 38,220		Under 37 C.F.R. § 10.9(b)
Jane E. Remillard	Reg. No. 38,872	Debra J. Milasincic	Reg. No. 46,931
Jeremiah Lynch	Reg. No. 17,425	David R. Burns	Reg. No. 46,590
Kevin J. Canning	Reg. No. 35,470	Sean D. Detweiler	Reg. No. 42,482
Jeanne M. DiGiorgio	Reg. No. 41,710	Peter S. Stecher	Reg. No. P47,259
Megan E. Williams	Reg. No. 43,270	Adam M. Goodman	Reg. No. 43,640

All of LAHIVE & COCKFIELD, LLP, 28 State Street, Boston, Massachusetts 02109

Ellen J. Kapinos	Reg. No.	Andrea Ryan	Reg. No. 28,469
Barbara A. Gyure	Reg. No. 34,614	Elizabeth A. Hurley	Reg. No. 41,859

of 87 CambridgePark Drive, Cambridge, Massachusetts 02140

Egon E. Berg	Reg. No. 21,117	Elizabeth M. Barnhard	Reg. No. 31,088
Gale F. Matthews	Reg. No. 32,269	Alan M. Gordon	Reg. No. 30,637
Darryl L. Webster	Reg. No. 34,276		

of One Campus Drive, Parsippany, New Jersey 07054

Rebecca R. Barrett	Reg. No. 35,152	Steven R. Eck	Reg. No. 36,126
Arnold S. Milowsky	Reg. No. 35,288	Michael R. Nagy	Reg. No. 33,432
George Tarnowski	Reg. No. 27,472		

of P.O. Box 8299, Philadelphia, Pennsylvania, 19101

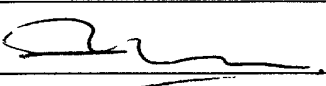
Send Correspondence to Amy E. Mandragouras at **Customer Number: 000959** whose address is:

Lahive & Cockfield, LLP, 28 State Street, Boston, MA 02109

Direct Telephone Calls to: Amy E. Mandragouras, (617) 227-7400

Wherefore I petition that letters patent be granted to me for the invention or discovery described and claimed in the attached specification and claims, and hereby subscribe my name to said specification and claims and to the foregoing declaration, power of attorney, and this petition.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Full name of sole or first inventor Clive Wood CLIVE R. WOOD	
Inventor's signature 	Date 12/7/00
Residence 2 Hawthorne, Place, #17R, Boston, MA 02114	
Citizenship USA	
Post Office Address (if different)	

Full name of second inventor, if any Gordon J. Freeman	
Inventor's signature	Date
Residence 305 Walnut Street, Brookline, Massachusetts 02146	
Citizenship U.S.	
Post Office Address (if different)	